

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A display, comprising:

a carrier body that defines at least one channel, the at least one channel extending in a direction of extension;
at least one particle disposed in the at least one channel; and
a controller that moves the at least one particle along the direction of extension of the at least one channel;

wherein the at least one particle provides maximum color reflection when disposed at a top end of the at least one channel, and provides minimum color reflection when disposed at a bottom end of the at least one channel.

2. (Currently Amended) The display according to claim 1, further including a bottom-first cover disposed at a bottom-first end of the at least one channel, and a top-second cover disposed at a top-second end of the at least one channel, the bottom-first and top-second covers preventing the at least one particle from exiting the at least one channel.

3. (Currently Amended) The display according to claim 2, further including a lens disposed at a top-surface of the top-second cover.

4. (Currently Amended) The display according to claim 2, wherein the top-second cover includes structure so as to operate as a lens to enhance optical characteristics of the display.

5. (Currently Amended) The display according to claim 2, further including a fluid disposed in the at least one channel, and the top-first and bottom-second covers ~~are being~~ affixed at the top-first and bottom-second ends of the at least one channel to prevent the fluid from exiting the at least one channel.

6. (Currently Amended) The display according to claim 1, wherein the at least one particle includes multiple particles, ~~the multiple particles including at least one cyan particle, at least one yellow particle and at least one magenta particle.~~

7. (Currently Amended) The display according to claim 6, wherein the at least one channel includes multiple channels that define an array, ~~each of the multiple channels only housing one particle of the at least one cyan particle, the at least one yellow particle and the at least one magenta particle.~~

8. (Original) The display according to claim 1, wherein the at least one particle is a solid.

9. (Original) The display according to claim 1, wherein the at least one particle is a liquid.

10. (Original) The display according to claim 1, wherein the at least one particle is micro-encapsulated.

11. (Original) The display according to claim 1, wherein the carrier body is at least partially made of silicon, and the at least one particle is charged.

12. (Currently Amended) The display according to claim 11, wherein the controller includes a ~~lower~~-MOS gate terminal provided at a ~~lower~~-surface of the carrier body ~~beneath~~at one end of the at least one channel.

13. (Currently Amended) The display according to claim 12, wherein the ~~lower~~ MOS gate terminal includes an oxide layer disposed on the ~~lower~~-surface of the carrier body and a metal layer disposed on the oxide layer.

14. (Currently Amended) The display according to claim 13, wherein the controller includes ~~an upper a~~ Si bulk connection that is connected to the ~~lower~~-MOS gate terminal via a signal line, to provide gate bias voltage.

15. (Currently Amended) The display according to claim 141, wherein the controller performs electrical bias of ~~the~~a gate terminal provided at a surface of the carrier body at one end of the at least one channel in order to generate an electric field in order to move the at least one particle along the direction of extension of the at least one channel.

16. (Currently Amended) The display according to claim 1, wherein the controller includes an electrode ring disposed at one of a ~~top~~first end of the at least one channel and a ~~bottom~~second end of the at least one channel.

17. (Currently Amended) The display according to claim 16, wherein the controller includes another electrode ring disposed at the other of the ~~top~~first end of the at least one channel and the ~~bottom~~second end of the at least one channel.

18. (Currently Amended) The display according to claim 17, wherein ~~at least one~~
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~~of~~ the one and other electrode rings are ~~each~~is connected to a supply of control voltage, such that the at least one particle moves within the at least one channel along the direction of extension of the at least one channel when control voltage is supplied to ~~at least one~~ of the one and other electrode rings.

19. (Original) The display according to claim 1, wherein the controller operates pursuant to an analog dot display form such that the at least one particle is movable in analog fashion and can be controlled so as to be stationary relative to the carrier body at any position along the direction of extension of the at least one channel.

20. (Currently Amended) The display according to claim 1, wherein the controller operates pursuant to a digital dot display form such that the at least one particle is controlled so as to only be stationary relative to the carrier body at ~~top~~first and ~~bottom~~second ends of the at least one channel.

21. (Canceled)

22. (Canceled)

23. (Original) A method of displaying an image, comprising the steps of:
moving at least one particle along a direction of extension of at least one
channel that is defined in a carrier body; and
stopping movement of the at least one particle along the direction of extension
of the at least one channel.

24. (Currently Amended) The method according to claim 23, wherein the
stopping step includes stopping movement of the at least one particle at any location along the
direction of extension of the at least one channel.

25. (Currently Amended) The method according to claim 23, wherein the
stopping step includes only stopping movement of the at least one particle at least at one of
top-first and bottom-second ends of the at least one channel.

E1 Canceled
26-35. (Canceled)

36. (New) The display according to claim 1, wherein the at least one particle
provides maximum color reflection when disposed at a second end of the at least one channel,
and provides minimum color reflection when disposed at a first end of the at least one
channel.

37. (New) The display according to claim 36, wherein the minimum color
reflection is not appreciably visible to the human eye.

38. (New) The display according to claim 6, the multiple particles including at
least one cyan particle, at least one yellow particle and at least one magenta particle.

39. (New) The display according to claim 6, the multiple particles including at
least one red particle, at least one green particle and at least one blue particle.

40. (New) The display according to claim 38, the multiple particles further
including at least one of a black particle and a white particle.

41. (New) The display according to claim 39, the multiple particles further including at least one of a black particle and a white particle.

42. (New) The display according to claim 6, the multiple particles including at least two single-color colorant particles in the same channel, the at least two single-color colorant particles having different colors.

43. (New) The display according to claim 7, each of the multiple channels only housing one particle selected from the group consisting of cyan particles, yellow particles, magenta particles, red particles, green particles, blue particles, black particles and white particles.

44. (New) The display according to claim 7, each of the multiple channels housing at least two particles.

45. (New) The display according to claim 44, the at least two particles including at least two single-color colorant particles that have different colors.

46. (New) The display according to claim 1, wherein the at least one channel includes multiple channels that define an array.

47. (New) The display according to claim 46, each of the multiple channels only housing one particle selected from the group consisting of cyan particles, yellow particles, magenta particles, red particles, green particles, blue particles, black particles and white particles.

48. (New) The display according to claim 46, each of the multiple channels housing at least two particles.

49. (New) The display according to claim 48, the at least two particles including at least two single-color colorant particles that have different colors.

50. (New) The display according to claim 1, the at least one particle being a single-color colorant particle.

51. (New) The display according to claim 50, the at least one single-color colorant particle being at least one member selected from the group consisting of at least one cyan particle, at least one yellow particle, at least one magenta particle, at least one red particle, at least one green particle, at least one blue particle, at least one black particle and at least one white particle.

52. (New) The display according to claim 1, the at least one particle including at least two single-color colorant particles.

53. (New) The display according to claim 52, the at least two single-color colorant particles having different colors.

54. (New) The display according to claim 1, the at least one particle having a single charge polarity.

55. (New) The display according to claim 1, the at least one particle including at least two particles having a single charge polarity.

56. (New) The display according to claim 55, a first one of the at least two particles having a charge polarity that is different than the charge polarity of a second one of the at least two particles such that the at least two particles can be moved in different directions along the direction of extension of the at least one channel.

57. (New) The display according to claim 54, the at least one particle having a single charge polarity being movable along the direction of extension of the at least one channel by application of only a single charge voltage.

58. (New) The display according to claim 1, the at least one channel defining a display pixel.

59. (New) The display according to claim 58, the at least one particle being a single-color colorant particle.

60. (New) The display according to claim 58, the at least one particle having a single charge polarity such that the at least one particle is movable along the direction of extension of the at least one channel by application of an electric field.

61. (New) The display according to claim 58, the at least one particle including at least two single-color colorant particles.

62. (New) The display according to claim 61, the at least two single-color colorant particles having different colors.

63. (New) The display according to claim 58, the at least one particle including at least two particles having a single charge polarity.

64. (New) The display according to claim 63, a first one of the at least two particles having a charge polarity that is different than the charge polarity of a second one of the at least two particles such that the at least two particles can be moved in different directions along the direction of extension of the at least one channel.

65. (New) The display according to claim 1, the at least one channel including multiple channels.

66. (New) The display according to claim 65, at least two of the multiple channels defining a display pixel.

67. (New) The display according to claim 66, the at least one particle including at least two single-color colorant particles.

68. (New) The display according to claim 67, the at least two single-color colorant particles having different colors.

69. (New) The display according to claim 67, each one of the at least two single-color colorant particles having a single charge polarity such that each one of the at least two single-color colorant particles is independently movable along the direction of extension of each of the at least two of the multiple channels by application of an electric field.

70. (New) The display according to claim 1, the carrier body defining a planar surface, the direction of extension of the at least one channel being substantially perpendicular to the planar surface.

71. (New) The display according to claim 1, the at least one channel including a plurality of channels defined by a single monolithic carrier body such that the carrier body constitutes side walls of the plurality of channels.

72. (New) The display according to claim 71, the monolithic carrier body further constituting at least one end wall of the plurality of channels.

73. (New) The method according to claim 23, the moving including moving at least one single-color colorant particle along the direction of extension of the at least one channel so as to provide contrast change regardless of rotational orientation of the at least one single-color colorant particle.

74. (New) The method according to claim 23, the moving including moving at least one particle having a single-charge polarity along the direction of extension of the at least one channel.

75. (New) A display apparatus, comprising:

at least one image display pixel that includes:

at least one cavity disposed between a first electrode and a second electrode, at least one of the first electrode and the second electrode being transparent, the at least one cavity including at least one single-color colorant particle disposed and movable within the at least one cavity, the at least one single-color colorant particle having a single charge polarity, the at least one cavity achieving a display contrast change independent of at least another cavity forming at least another image display pixel.

76. (New) The display apparatus according to claim 75, the at least one cavity including at least two cavities, one of the at least two cavities achieving a display contrast change independent of another one of the at least two cavities.

77. (New) The display apparatus according to claim 75, further comprising a dielectric fluid disposed in the at least one cavity.

78. (New) The display apparatus according to claim 75, the at least one single-color colorant particle having a coating that prevents at least one of a charge leakage and a particle agglomeration.

79. (New) The display apparatus according to claim 78, the coating including a surfactant.

80. (New) The display apparatus according to claim 75, further comprising a fluid disposed in the at least one cavity that provides a dielectric medium.

81. (New) The display apparatus according to claim 75, wherein the at least one single-color colorant particle includes at least two colorant particles that are each single-color and that each have a single charge polarity, the at least two particles being disposed and movable within the same cavity.
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82. (New) The display apparatus according to claim 81, wherein the at least two colorant particles have different colors.

83. (New) The display apparatus according to claim 82, wherein the at least two colorant particles have different charge polarities.

84. (New) A method of providing contrast change at at least one channel that forms a display pixel in the display of an image, comprising:

moving at least one of at least two single-color, single charge particles disposed within the at least one channel along a direction of extension of the at least one channel by use of an electric field, a first one of the at least two particles having a color that is

different from the color of a second one of the at least two particles, the first particle having a charge polarity that is different from the charge polarity of the second particle such that the two single-color, single charge particles can be moved in different directions along the direction of extension of the at least one channel, the at least one channel that forms the display pixel achieving a display contrast change independent of at least one other channel that forms another display pixel.

85. (New) A method of providing contrast change at at least one channel that forms a display pixel in the display of an image, comprising:

moving at least one single-color, single charge particle disposed within the at least one channel along a direction of extension of the at least one channel by use of an electric field, the channel having at least one end bounded by a substrate having a different color than a color of the at least one single-color, single charge particle, the least one channel that forms the display pixel achieving a display contrast change independent of at least another channel that forms another display pixel.

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86. (New) A method of providing contrast change at at least one channel that forms a display pixel in the display of an image, comprising:

moving at least one single-color, single charge particle disposed within at least one channel along a direction of extension of the at least one channel by use of an electric field, the channel including a dielectric fluid in the at least one channel, the dielectric fluid having a different color than a color of the at least one single-color, single charge particle, the at least one channel that forms the display pixel achieving a display contrast change independent of at least one other channel that forms another display pixel.

87. (New) A method of providing contrast change at at least two channels forming a display pixel, comprising:

moving at least one single-color, single charge colorant particle disposed within each of the at least two channels along a direction of extension of each of the at least two channels, each channel formed between a first electrode and a second electrode, at least one of the first electrode and the second electrode being transparent, the first channel of the at least two channels achieving a display contrast change independent of at least a second channel of the at least two channels.

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